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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,078	01/19/2007	Gerhard Schwenk	SCHW3003/JJC	8640
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EXAMINER				
LEWIS, JUSTIN V				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,078

Applicant(s)

SCHWENK ET AL.

Examiner

JUSTIN V. LEWIS

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-32 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 07 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/CI/CD)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

1. Applicants' amendment, filed on 02 April 2009, is acknowledged. Amended claims 1, 4, 8, 18, 22 and 26-27 have been entered. Accordingly, claims 1-32 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4-11, 13, 16-19 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,506,476 to Kaule et al. ("Kaule") in view of U.S. Patent No. 5,259,907 to Soules et al. ("Soules") and further in view of U.S. Patent No. 4,455,039 to Weitzen et al. ("Weitzen").

Regarding claim 1, Kaule discloses a value document, comprising: i) a value document substrate (label 2) and at least a first feature substance (luminescent substance 6) for checking the value document, the first feature substance being applied to the value document substrate or incorporated into the volume of the substrate (see fig. 3); wherein the first feature substance is formed by at least one of a luminescent substance and a mixture of luminescent substances, having a complex spectral distribution (see col. 6, lines 42-43), but fails to disclose: i) said spectral distribution itself forming a coding; and ii) a second feature substance featuring an independent coating, the second substance being applied to the value document substrate.

Soules teaches the concept of providing a spectral distribution itself forming a coding (see fig. 1).

Weitzen teaches the concept of providing a second feature substance (coating in the form of bands 3, 4 and 5) featuring an independent coating (see col. 1, lines 37-38), the second substance being applied to the value document substrate (see col. 1, lines 31-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to form the Kaule first feature substance in the form of Soules coding in a first area of the substrate in order to permit the value document to be identified with machine readable indicia, as explicitly taught by Soules (see col. 4, lines 42-45).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to place the Weitzen coating upon the Kaule value document in a second

area of the substrate as desired, in order to render the document more difficult to counterfeit, as explicitly taught by Weitzen (see col. 1, lines 31-33).

Regarding claim 4, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein the second feature substance is formed by at least one of a luminescent substance and a mixture of luminescent substances (see Kaule abstract).

Regarding claim 5, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein at least one of the feature substances is formed on the basis of a host lattice doped with rare earth elements (see Kaule col. 1, lines 5-8).

Regarding claim 6, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein at least one coding extends over a predominant part of a surface of the value document (see Kaule col. 3, lines 30-34).

Regarding claim 7, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein at least one coding is a bar code (see Weitzen col. 1, lines 37-38).

Regarding claim 8, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein a coding lies in the material properties of the second feature substance (see Weitzen col. 1, lines 37-38).

Regarding claim 9, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein at least one coding

represents information about the value document, the information being present in at least one of encrypted and unencrypted form (note that the Weitzen bar code will represent information about the document when applied thereto).

Regarding claim 10, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein the codings formed by the first and second feature substances are either or both applied at different places of the value document and applied with different shapes on the value document (see the combination set forth in the rejection of claim 1, above).

Regarding claim 11, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein the codings formed by the first and second feature substances represent different information contents (note that the codings may represent different information as desired).

Regarding claim 13, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein the value document substrate comprises a printed or unprinted plastic film (see Kaule col. 3, lines 19-22).

Regarding claim 16, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein the first feature substance is present within the volume of the value document substrate or near the surface in the substrate (see Kaule fig. 3).

Regarding claim 17, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, wherein at least one of the first and

second feature substances is colorless or has only little inherent color in the visible spectral range (see Weitzen abstract, providing that the coding is transparent).

Regarding claim 18, Kaule in view of Soules and further in view of Weitzen discloses a method for producing a value document comprising the steps: i) providing first and second feature substances forming mutually independent codings (see the combination set forth in the rejection of claim 1, above), the second feature substance being applied to a value document substrate (see Weitzen col. 1, lines 31-35), and the first feature substance either or both being applied to the value document substrate and incorporated into the volume of the value document substrate (see Kaule fig. 3); ii) forming the first feature substance from at least one of a luminescent substance and a mixture of luminescent substances, having a complex spectral distribution (see the combination set forth in the rejection of claim 1, above); and iii) forming a coding from said spectral distribution itself (see the combination set forth in the rejection of claim 1, above).

Regarding claim 19, Kaule in view of Soules and further in view of Weitzen discloses the production method according to claim 18, wherein the first and/or second feature substance is printed on the value document substrate (see Weitzen col. 1, lines 31-35).

Regarding claim 30, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 6, wherein the coding extends over substantially the total surface of the value document (see Kaule col. 3, lines 30-34).

Regarding claim 31, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 8, wherein the material properties are in the form of at least one of emission and excitation spectra (see Kaule col. 1, lines 19-23).

5. Claims 2-3 and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaule in view of Soules and further in view of Weitzen and U.S. Patent No. 6,491,324 to Schmitz ("Schmitz").

Regarding claim 2, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, but fails to disclose a third feature substance incorporated into the volume of the substrate of the value document.

Schmitz teaches the concept of providing a third feature substance (magnetic layer 5) incorporated into the volume of the substrate of a value document (see fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the Schmitz magnetic layer within the value document of Kaule in view of Soules and further in view of Weitzen in order to provide security threads for the document, as explicitly taught by Schmitz (see col. 2, lines 16-17).

Regarding claim 3, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the value document according to claim 2, wherein the third feature substance is distributed substantially uniformly within the volume of the value document substrate (see Schmitz fig. 2).

Regarding claim 21, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the production method according to claim 18, wherein a third feature substance is incorporated into the value document substrate (see Schmitz fig. 2).

Regarding claim 22, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses a method for checking or processing a value document according to claim 1, comprising the steps: i) checking the authenticity of the value document (verifying that the Kaule luminescent substance is present) and carrying out a value recognition of the document (reading the value bar code present per Weitzen col. 11, lines 2-5) by using at least one characteristic property of at least one of the first and second feature substances for checking the authenticity of the value document, and the coding formed by at least one of the first and second feature substances for the value recognition of the value document (checking the Weitzen bar code); and ii) when selecting, the first feature substance to check the authenticity, of the value document, checking the authenticity of the value document on the basis of the coding formed by said spectral distribution itself (inherent).

Regarding claim 23, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the method according to claim 22, wherein at least one characteristic property of the first feature substance is used for checking the authenticity of the value document (luminescence of the embedded particles), and the coding formed by the first feature substance for the value recognition of the value document (note that the absence of luminescence indicates that the document has no value at all), by a user of a first user group.

Regarding claim 24, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the method according to claim 22, wherein at least one characteristic property of the second feature substance is used for checking the authenticity of the value document (note that the presence of the Weitzen bar code indicates authenticity), and the coding formed by the second feature substance for the value recognition of the value document (note that the Weitzen bar code may indicate a specific value of the document, per col. 11, lines 2-5), by a user of a second user group.

Regarding claim 25, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the method according to claim 22, wherein at least one characteristic property of at least one of the first and third feature substances is used for checking the authenticity of the value document (note that the presence of the Kaule luminescent particles confirms authenticity), and the coding formed by the first feature substance is used for the value recognition of the value document (see the combination set forth in the rejection of claim 1, above), if the user belongs to a first user group, and at least one characteristic property of the second feature substance is used for checking the authenticity of the value document (note that the presence of the Weitzen bar codes confirms authenticity), and the coding formed by the second feature substance is used for the value recognition of the value document (note that the Weitzen bar code may indicate a specific value of the document, per col. 11, lines 2-5), if the user belongs to a second user group.

Regarding claim 26, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the method according to claim 22, wherein the first feature substance

is a luminescent substance (see Kaule abstract), and for the authenticity check or value recognition by a user of a first user group, the first feature substance is irradiated with radiation from its excitation range (see Kaule col. 5, lines 35-39), the emission is determined at least one wavelength from the emission range of the first feature substance (note that in Kaule fig. 1, the wavelengths of a variety of luminescent materials are provided, each wavelength being far less than 10 micrometers; note further that in order to properly inspect the value document, a user will naturally hold the document at a distance of greater than 10 micrometers away from his/her eyes), and at least one of the check of authenticity and the value recognition is carried out on the basis of the determined emission (note that the presence of luminescent particles confirms authenticity).

Regarding claim 27, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the method according to claim 22, wherein the second feature substance is a luminescent substance (see Weitzen abstract, providing that the physical characteristic of electroluminescence is present), for the authenticity check or value recognition by a user of a second user group the second feature substance is irradiated with radiation from its excitation range, the emission is determined at least one wavelength from the emission range of the second feature substance, and either or both the check of authenticity and the value recognition is carried out on the basis of the determined emission (see the rejection of claim 26, above; note that a similar check for electroluminescence will similarly require holding the substrate at a distance of greater than 10 micrometers from the reader).

Regarding claim 28, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the method according to claim 26, wherein at least one of the first and second feature substances is irradiated with at least one of visible and infrared radiation, and the emission of the irradiated feature substance is determined in the infrared spectral range (see col. 1, lines 15-18).

Regarding claim 29, Kaule in view of Soules and further in view of Weitzen and Schmitz discloses the method according to claim 26, wherein the irradiation is performed with at least one of a light-emitting diode and a laser diode (see Kaule col. 5, lines 35-39, specifying that various light sources such as halogen lamps may be used; note that per the Meriam-Webster dictionary, a "diode" is "an electronic device that has two terminals"; note further that halogen lamps emit light; accordingly, the halogen lamps taught by Kaule are "light-emitting diodes").

6. Claims 12, 14-15, 20 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaule in view of Soules and further in view of Weitzen and U.S. Patent Application Publication No. 2004/0084277 to Blair ("Blair").

Regarding claim 12, Kaule in view of Soules and further in view of Weitzen discloses the value document according to claim 1, but fails to disclose the value document substrate comprising a printed or unprinted cotton fiber paper.

Blair teaches the concept of forming a value document substrate from cotton fiber paper (see paragraph 6, lines 6-7).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the Blair cotton pulp in order to make the document of value of

Kaule in view of Soules and further in view of Weitzen, in order to give it better durability than commercial papers and a distinctive feel, as explicitly taught by Blair (see paragraph 6, lines 7-9).

Regarding claim 14, Kaule in view of Soules and further in view of Weitzen and Blair discloses the value document according to claim 1, wherein the substrate is paper having the form of a moist paper web during production (note that the use of the Blair cotton pulp requires that the value document consist a moist paper web at some point during production thereof), and wherein at least one of the first and second feature substances is printed on the value document substrate (see the combination set forth in the rejection of claim 1, above).

Regarding claim 15, Kaule in view of Soules and further in view of Weitzen and Blair discloses the value document according to claim 1, wherein at least one of the first and second feature substances is applied to the moist paper web in the form of the coding during papermaking (note that the use of the Blair cotton pulp requires that the value document consist a moist paper web at some point during production thereof).

Regarding claim 20, Kaule in view of Soules and further in view of Weitzen and Blair discloses the production method according to claim 18, wherein the value document substrate is formed by a printed or unprinted cotton paper (see the combination set forth in the rejection of claim 1, above), and wherein at least one of the first and second feature substances is sprayed onto the moist paper web during papermaking (see Kaule col. 2, lines 37-39).

Regarding claim 32, Kaule in view of Soules and further in view of Weitzen and Blair discloses the value document according to claim 15, wherein the second feature substance is sprayed on the moist paper web in the form of the coding (see Kaule col. 2, lines 37-39; note that the mere presence of the luminescent particles indicates authenticity).

Response to Arguments

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN V. LEWIS whose telephone number is (571)270-5052. The examiner can normally be reached on M-F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571) 272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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